

Fig. 1

HP02573	61'	YGRQDLHLRI	FDPSPEDI	ARADNI	FTATERN	RI	DYVSSA	VRIDH	APDL	PRPEV	CFIG	RSN
C9pA	1"* * * * * MFFAQPVSFIMGAVRMDAMPSPDLPEVAFAGRSN										
HP02573	121'	VGKSSLIK	ALFSLA	PEVEVR	VSKKPG	HTKKMN	FFKVGK	HHFT	VVDM	PGYGF	-----RAPED	
C9pA	35"	****** * * * * VNKYLARASNEPGRTRQINFFLLAEKVRLVDLPGYGFARVSRSIADK										
HP02573	176'	FVDMVET	YLKERR	NLKR	TFLL	VD	SVVGI	QKTD	NIAI	EMCEE	FALPY	VIVLTKIDKSSK
C9pA	93"	* * * * * * * * * * FQDLGRAYLRGRANLKR VYVLIDARHGLKKVDLEALDADVAASVYQIVLTKADKIKPAE										
HP02573	236'	LLKQVL	QIQK	FVNM	KTIQ	GC	FPQ	LPF	VS	AVTF	SGIHL	LLRCFIASVTGS
C9pA	153"	* * * * * * * * * * VDKVVAETQKAIKRAAA-FPRVLATSSSEKGLGMPELRAEIVRLCIDE										

Fig. 2

HP02612	61'	KVPLAGGGRKPRLHRRHRVYKLVEDTKHRPKENLELILTQSVENVGVRGDLVSVKKSLGR
RL9_MYCLE	1"	..***..* ** *... ** MKLILTADVVDHLGSGVDTVFVKDGYGR
HP02612	121'	NRLLPQGLAVYASPENKKLFEEKKLLRQEGKLEKIQTKEALGVVVPHTLKLPAEPIT
RL9_MYCLE	28"	* ***.***. * * * * . * * * * * NFLPHGLAIVASRGAQRQADEIRRAR-ETKAMRDREHANEIKVAIEALGVSLSLPMKTVA
HP02612	181'	RWGEYWCEVTVNGLDTVRVPMVSVNFEKPKTKRYKYWLAAQQAAMAPTSPQI
RL9_MYCLE	87"	* . . . * * DSGKLFGSVTAGDVVAAIKKAGGPNLDKRIVRLPKTHIKAVGTHPVSVHLHPEVDVVVLL

Fig. 4

HP10120	1'	MQRVSGLLSWTLRVLWLSGLSEPGAAQQPRIMEE-KALEVYDLIRTIIRDPEKPNLTLEEL
CEF45G2	1"	MGQERLDNANPTLFDISKPRHRPVTGTERDESVEDEPIDSWEIFDLIRINDPEHPYTTLEQL
	*...*...*...*...*
HP10120	60'	EVVSESCVEVQEINEEYLVIIIRFTPTVPHCSLATLIVGNLHF
CEF45G2	61"	NVVQEELIKV-FIDEEETFVKVNFTPTIPHCSMATLIGLAIRVKLLRSLHPKVKSVSIT

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Fig. 5

HP10421 1' MAAAGLALLCRRVSSALKSSRLTTPQVPACTGFFLSLLPKSTPNVTSFHQYRLLHTTILS
 B0261.4 1" MGEAIVRWSALAAHLLFFGSKVFSKIFYFLMFFKSTMWRSLSLVS-SAVRSQNAVNT
 HP10421 61' R--KGLEEFFDDPKNWG----QEKVKSAAWTCQQLRNKSNEDLHKLWYVLLKERNMLLT
 B0261.4 58" RFSSTMKQFFDDEANFGKAELRPKHPGRSWTAEELRIKSNEDLHKLWYVCLKERNMLIT
 HP10421 115' LEQEAKRQRLPMPSPERLDKVVDSDMDALDKVVQEREDALRLLOTGQERARPGAWRRDIFG
 B0261.4 118" MKKAHTSRARNMPNPERLDRVHETMDRIESVVHERNDVFRLETG-ESAAPKRRTITSFA
 HP10421 175' RIIWHK-FKQWVIPWHL-NKRYNRKRFFALPYVDHFLRLERE---KRARIKARKENLERK
 B0261.4 177" GETYQKQATEHFAPPQLGQKEYETPYLDDDA YVMQKILWQEKEFMKNRDRLLDDEKRRRAART
 HP10421 230' KAKILLKKFPHLAEAKSSIV
 B0261.4 237" EDMDRFKRGAPRVFNR

6. 5. 1. 1.

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HP10582      1'      MDSNHQSNYKLSKTEKKFRLKQIKAKHTLLRHE-GIETVSYATQSLVVANGGLGN
                * . . * . . * . . . . . * . . . . . * . . . . .
YKY5_CAEEL  361"    RELSYFNEEKAKRIGERFEGGKLAKKVHKSIEQLKRHDPDVQISTEPTKYLLVSNSSILC
                * . . * . . * . . . . . * . . . . . * . . . . .
HP10582      55'    GVS RNQLLPV-LEKCGLDALIMPPNKPYSFARYRTTEESKRAYVTLNGKEVVDDLGGQKI
                *** . . . * . * . . . * . . . . . * . . . . . * . . . . .
YKY5_CAEEL  421"    GVSLEEELEEIFLPLDELAEFIVYPNKRYSFVQCSSIEKSIQVRTELHGLIPPSLKNSHQ
                * . . * . . * . . . . . * . . . . . * . . . . . * . . . . .
HP10582      114'   TLYLNFVEKVQWKELRPQALPPGLMVVEEIISSSEEEKMLLESVDWTEDTDNQNSQKSLKH
                . . . . . * . . . . . * . . . . . * . . . . . * . . . . .
YKY5_CAEEL  481"    PFAISYVENLPEATKCEDFRPANLKIIEEYVSSDLEKELVDLV-----TNHPSVQSLKH
                * . . * . . * . . . . . * . . . . . * . . . . . * . . . . .
HP10582      174'   RRVKHFGEYFHYENNNDKDKPLSGGLPDICESFLEKWLRKGYIKHKPDQMTINQYEPGQ
                * * * * * * . . . . . * . . . . . * . . . . . * . . . . .
YKY5_CAEEL  535"    RAVVHFGHVFDYSTNSASEWKE-ADPIPPVINSLIDRLISDKYITERPDQVTANVYESGH
                * . . * . . * . . . . . * . . . . . * . . . . . * . . . . .
HP10582      234'   GIPAHIDTHSAFEDEIVSLGSEIVMDFKH--PDGIAVPVMLPRRSLLVMTGESRYLWT
                *** . * * * * * * . . . . . * . . . . . * . . . . . * . . . . .
YKY5_CAEEL  594"    GIPSHYDTHSAFDDPIVVISLSDVVMFEKDGANSARIAPVLLKARSLCLIQGESRYRWK
                * . . * . . * . . . . . * . . . . . * . . . . . * . . . . .
HP10582      292'   HGITCRKFDIVQASESLKSGIITSDVGDLTLSKRGRLRTSFTFRKVRQTPCNCSPYIVCDS
                *** . * * * * . . . . . * . . . . . * . . . . . * . . . . .
YKY5_CAEEL  654"    HGIVNRKYD-----V-----DPRTNRVVPRQTRVSLTLRKIRRKPCCEWKEFCDW
                * . . * . . * . . . . . * . . . . . * . . . . . * . . . . .

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HP10160	1'	MASRGKTETSKLKQNL	EEQQLDRIMQQLQDL	EECREELDTDEYEET	KKETLEQLSEFNDSL
		* . *	*	*	*
ZK1248	1"	MGVDDLLIKNAQKTID	RLIRQLAEIEQEENN	LEDEYRELREDTVNQL	QEYGKIV
HP10160	61'	KKIMSGNMTLVDEL	SGMQLAIQAAISQAF	KTPVIRLFAKKQPGQL	RTRLAEMDRDLMVG
	
ZK1248	56"	ERLQGGDVSLIDDL	TATKIAIRTAISKAF	KTPFIMALFAGKHTGL	LLREKLMMTETNYRSQ
HP10160	121'	KLERDLYTQQKVEIL	TALRKIGKILTADDE	AFLSANAGAILSQFEK	VSTDLGSGDKILAL
		* . . . *	* . . . *	* . . . *	* . . . *
ZK1248	116"	KMPKQGYLERKFEIL	MAIRLRLEETLTEDER	KFLSDRLET--PEFQ	LIEANANRLFSGNVT
HP10160	181'	ASFEVEKTKK			
ZK1248	174"	SPVFRVQIMASPKPK	KVRLLDDKTENVSP	PPKAWWHTEKKRKR	KFFTYNDKTKESLWDHPNTR

HP10160 181' ASFEVE'TKK

ZK1248 174" SPVFRVQIMASPKPKKVRLLDKTENVSPPKAWWHTTEKKRKFFYNDKTKESSLWDHPNTR

10-11-44

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HP02644 1' M K L K D T K S R P K Q S S C G K F Q T K G I K V V G R W K C V K I D P N M F A D G Q M D D L V C F F E E L T D Y Q L V S
      * . . * . . * . . . . . * . . * . . * . . . . . *
CELF55F8 1" M T N I S I P G N W Q T C D V E A --- M D G D F D D N M - L Q F L G S F F E E V L

HP02644 61' P A K N P S S L F S K E A P K R K A Q A V S E E E E E E E G K S S P K K K I K L K K S K N V A T E G T S T Q K E F E V
      * . . . . * . . . . * . . . . . * . . . . . * . . . . . *
CELF55F8 38" P -- E G V E V E T K K G M K K N K P K K V E N T E R P E E D A K C V E T E R R L A K K L R R K E Q M A A N R K Q ---
      * . . . . * . . . . * . . . . . * . . . . . * . . . . . *

HP02644 121' K D P E L E A Q G D D M V C D D P E A G E M T S E N L V Q T A P K K K N K G K G L E P S Q S T A A K V P K K A K I W
      * . . . . * . . . . . * . . . . . * . . . . . * . . . . . *
CELF55F8 93" K K E R L --- A K R K Q K E A E S S A K K S E N A T E T T E K P K E Q - K K R K G G E N G D T G K - P K K S K ---
      * . . . . * . . . . . * . . . . . * . . . . . * . . . . . *

HP02644 181' I P E V H D Q A D V S A W K D L - F V P R P V L R A L S F L G F S A P T P I Q A L T L A P A I R D K L D I L G A A E T
      * . . . . * . . . . . * . . . . . * . . . . . * . . . . . *
CELF55F8 145" -- K E A S K K T D I S A W K Q F Y F L P N E V L E A I E Q M G F S E P T E I Q S A V L P A A V R D R Q D V L G A A E T
      * . . . . * . . . . . * . . . . . * . . . . . * . . . . . *

HP02644 240' G S G K T L A F A I P M I H A V L Q W K R N A A P P S N T E A P P G E T R T E A G A E T R S P G K A E A E S D A L F
      * . . . . * . . . . . * . . . . . * . . . . . * . . . . . *
CELF55F8 203" G S G K T L A F G I P L V A R L L E S D D S Q E T E S T E V R G P R ---
      * . . . . * . . . . . * . . . . . * . . . . . * . . . . . *

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Fig. 10-1

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HP02644 300' DDTWIESEALPSDIAEAFARAKTGGTVSDQALLFGDDDAGEGPPSSLIREKPPVKQNEEEEE
CELF55F8 263" -----
HP02644 360' NLDCEQTCGNLQKQELDDKSATCKAYPKRPLLGLVLTPTRELA VQVKQHIDAVARFTGIKTA
CELF55F8 323" -----
HP02644 420' ILVGGMSTQKQQQOML-NRRPEIIVVATPGRWLWELIKEKH Y--HLRNLRLQLRCLVVDEADRM
CELF55F8 383" SIVGGLAQVKQERIISQORPDI VVATPGRLWAMMQEAE TGEFLAEWKDLKCLVVDETD RM
HP02644 477' VEKGHFAELSQLLEMLNDSQYNPKRQTLVFSATLTLVHQAPARILHKKH TKKMDKTAKLD
CELF55F8 443" VEEGYFAELTHILNKIHEESEKEKLQTLVFSATLTFAKAQDVAEE EKXKAKELSSQQKI Q
HP02644 537' LLMQKIGMR-GKPKVIDLTRNEATVETLTETKIH CET-DEKDFYLYYFLMQY PGRSILVFA
CELF55F8 503" RLIKLTGLRENKHKVIDLTRQMGTAGCLVEARINCGNLLLEKDTSLVYLLTRYPGRTIVFV

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Fig. 10-2

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HP02644 595' NSISCIKRLSGLLKVLDDIMPLTLHACMEHQKQRLRNLEQFARLEDCVLLATDVAARGLDIP
***. ** .. ** ..* * ..*** * ***** .. *****
CELF55F8 563" NSIDAARRLYSVLKSVNIDPMILHAKMIQKQRLKNLEKPSSEKNAVLLATDVAARGLDIQ
*****.. ***.*****.. **.....* * ..* * ..* * ..
HP02644 655' KVQHVTIHYQVPTSEIYVHRSGRTARATNEGLSLMLIGPEDVTNFKKIYKTLKKDEDIPL
*****.. ***.*****.. **.....* * ..* * ..* * ..
CELF55F8 623" GIDHVIHYQVPKKVEIYIHRSGRTARASHRGLTVVLVDPPSRQFYMKLCKGLNRMQDLNV
*****.. ***.*****.. **.....* * ..* * ..* * ..
HP02644 715' FFPVQ-TKXMDVVKERIRLARQIEKSEYRNFQACLHNSWIEQAAAALLEIELEEDMYKGGKA
**.. . *...*.***...*... . . ***.*** * ... *.....
CELF55F8 683" FPIDFEPLMNAIKKRVRLASEIDSLGFRCKKIKMSESWFEKAAARAADLDYDETRHREMDG
**.. . *...*.***...*... . . ***.*** * ... *.....
HP02644 774' DQQEERRRQKQMKVLLKKELRHLLSQPLFTESQTKTYPTQSGKPFLLVSAFSPKSEBALSL
* * . . . . * . . . . ** ** . . . . * * . . . . *
CELF55F8 743" LNLLEVDTMVQKSRQLQAQLRTELSLPLPRVDGSDSMKTKYLTPEIVARLRSVGDNAIDVL
* * . . . . * . . . . ** ** . . . . * * . . . . *
HP02644 834' S-KQKKKTKCKPEPQPEQPQPSISAN
* * . . . . * * . . . .
CELF55F8 803" NQKIDETKEWKRKSRKATREDEEMNSMKCKSLKSSQKNKERLAEKKKCKEAKKVTKLSETD
* * . . . . * * . . . .

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Fig. 11

HP03233 1' MAAPGSCALWSYCCGRGWSRAMRGCCQLLGLRSSWPGLLLSARLLSQEKRAAETHFGFETVS
 SPUBM 1" MSRLRAPVAKFLADGLKGIRSTALAGSRLSN-CRYTSTSSKDTDTSSHMTHFGFKDVP
 HP03233 61' EEEKGGKVYQVFESVAKKYDVMMDSLSLGIHRVWKDLLLWKMHPLPGT---QLLDVAGGT
 SPUBM 58" EDEKEHLVKNVFSSVAKKYDEMNDAMSLGIHRLWKNIFVSRLNPGNSTVPMKILLDVAGGT
 HP03233 118' GDIAFRFLNYYQSQHQKQKQRLRAQQNLSEEEIAKEYQNEEDSLGGSRVVVCDDINKEML
 SPUBM 118" GDIAFRILNHATNHNGDRNTRVIV-----ADINPDML
 HP03233 178' KVG-KQKALAQGYRAG-LAWVLGDAEEL-PFDDDDKFDIYTIAGFIRNVTHIDQALQEAHR
 SPUBM 150" SVGLRRSKKTPYYDSGRVEFIEQNAEILDKIPDNSIDMYTIAFGIRNCTHIPKVLEQAYR
 HP03233 235' VLKPGGRFLCLEFSQVNNPLISRLYDLYSFQVLPVLGEVIAGDWKSYQYLVESIRRFPSQ
 SPUBM 210" VLKPGGVFSCLEFSKVYPAPLAELYRQYSFKILPLLGTIIAGDSQSYEYLVESIERFPDA
 HP03233 295' EEFKDMIEDAGF---HKVYTESLTSIGIVAIHSGFKL
 SPUBM 270" KTFAKMIEDAGFTLAGETGYETLSFGIAAIHTGIKL

Fig. 12

Fig. 13

HP10525 1' MELSAYLREKLQDLEAEHVEVEDTTLNRCSCSFRVLVVSAKFEGKPLLQHRHLVNACL
 ...* ** * * * ** * * * *
 SPAC8C9 1" MVNAQQLELLIQNTLEPTHEIQDM-SGGCGQNFEEVIVSPLFEGKSTLARHRLVNHKL

HP10525 61' AEELPHIHAFEQ-KTLTPDQWARERQK
 . * . * * * * . * * .
 SPAC8C9 59" QEVIKDIHAFTQVRTLSFRHIR

Fig. 14

HP10543	1'	MAATEPILAAATGSPAAPPEKLEAGAGSSAPERNVCVSSSLPEASPPAPEPSSPNAAVPEA
LEAP1	1"	MAAPQPSQDPQSPAAPPEQEGAGDCA
HP10543	61'	IPTPRAAASAALELPLGPAPVSVAPQAEAEARSTPGPAGSRLGPETFRQFRQFRYQDAA
LEAP1	28"	APSPDSGSSPAPELPGAPAAPALNTAPYADAVLR---PGASRPGPETFRQFRQFRYQDAA
HP10543	121'	GPREAFRQLRELSRQWLRPDIRTKEQIVEMILVQEQLLAILPEAAARRRRRRTDVRITG
LEAP1	84"	GPREAFRQLRELSRQWLRPDIRTKEQIVEMILVQEQLQAILPEAAARRRRRRADVRITG

Fig. 15

HP03090 1' MAARRALHFVFKVGNRFQTARFYRDVLGMKVLRRHEEFEEGCKAACNGPYDGKWSKTMVGF
CEHYPO 1" MTARALHYVFKVANRAKTIDFFTNVLNMMKVLRRHEEFKEGCEATCNGPYNGRWSKTMIGY
HP03090 61' GPEDDHFVAELTYNYGVGDYKLGNDFMGITLASSQAVSNARKLEWPLTEVAEGVFETEAP
CEHYPO 60" GSEDEHFVLEITYNYPIHKVELGNDYRAIVIDSDQLFEKVEKIN--HRKSGCGRLAVKDP
HP03090 121' GGYKFYLNRRSLPQSDPVLKVTLAVSDLQKSLNYWCNLLGMKIYEKDEEKQRALIGYADN
CEHYPO 118" DGHEF--KIGKADQSPKVLRVQNVNVDLEKSKKYVNETLGMPIVEEKSSRIR--MSYGDG
HP03090 181' QCKLELQGVKGGVDHAAAFGRIAFSCPQKELPDLEDLMKRENQKILTPLVSLDTPGKATV
CEHYPO 174" QCELEIVKSQDKIDRKTFGRGRIAFSYPEDKLESQDKIKSANGTIINELTTLETTPGKADV
HP03090 241' QVVILADPDGHEICFVGDEAFREL SKMDPEGSKLLDDAMAADKSDWFAKHNKP KASG
CEHYPO 234" QVVILADPDGHEICFVGDEGFRALSKIDDKAESSELKEQIKKDDSEKWI

Fig. 16

HP03145 1' MLGSRAAGFARGLRALALAWLPGWGRGRSFALARAAAGPHGGDLQPPACPEPRGRQLSLSA
 SCCOQ2 1" MIIKPIASPARYFLRTPSWSAVAIFQAVKIKPLQLRTNSSNSVTPNLIIPSK
 HP03145 61' AAVVDSAPRPLQPYLRIMRLDKPIGTWLLYLPCTWSIGLAA---EPGCFPDWYMLSLFGT
 SCCOQ2 53" KSWKDLFSKRWQYYAEISRAGSPGTGYLLYSPTWSILMAAYAYDSSLVNVTKMLALFGV
 HP03145 118' GAILMRGAGCTINDMWDQDYDKKVTRTANRPIAAGDISTFQSFVFLGGQLTLALGVLLCL
 SCCOQ2 113" GSFLMRGAGCVINDLWDRELDKVERSRSRPIASGKLSVRQAISSLVQLTASLGILLQL
 HP03145 178' NYYSIALGAGSLLLVITYPLMKRISYWPQLALGLTFNNGALLGWSAIKG-SC-DPSVCLP
 SCCOQ2 173" NPYTIKLGVASLVPVCIYPAMKRITTYYPQVVLGLTFGYGAVMGWPALAGEACMNWSVVAP
 HP03145 236' LYFSGVMWTLIYDTIYAHQDKRDDVLIGLKSALTALRFGENTKFWLSGFSVAMIGALSIVGV
 SCCOQ2 233" LYLSTISWIVLYDTIYAHQDKRDDVKANIYSTALRFGDNTKPVLCGLAALQIATLATAGI
 HP03145 296' NSGQTAPYYA-ALGAUVGAHLTHQIYTTLDIHRPEDCWNKFISNRTLGLIVFLGIVLGNLWK
 SCCOQ2 293" MNGQGPVFYTLGVAGAAAYRLSSMIYKVDLDDPKDCFRWFKRNSNTGYLVAAAIALDWLAK
 HP03145 355' EKKTDKTKKKGIENKIEN
 SCCOQ2 353" SFIYDS

[illegible]

Fig. 18

HP03324	1'	MAICALTRALRSINLAPPTVAAPAPSLFPAAQMMNNGLLQQPSALMLLLPCRPLTVALN
BRPL2	1"	MGLKRFPVTPGRRFMVI
HP03324	61'	ANFVSWKSRTKTYTITPVKMRKSGGRDHTGRIRVHGIGGGHKQRYRMIDFLRFRPEETKSG
BRPL2	19"	SDFS DITKTEPEKSLIAPLKKTGGRNHHGRVTVRHRGGGHHKRRYRIIDFKRY----DKAG
HP03324	121'	PFEKVIQVRYDPCRSADIALVA-GGSRKRWIIATENMQAGDTILNSNHIGRMVAAREG
BRPL2	75"	-IPAKVLAIEYDPNRSARIALLLYADGEKRYILAPKGVNVGDTLMSGPD---AEIRP--G
HP03324	180'	DAHPLGALPVGTLINNVESEPRGAQYIRAAAGAGNVRSNSRPSIQR
BRPL2	129"	NALPLEKIPVGTLVHNVEFTPGKGGQIARAAGTYCQIMAKEGNYALLRMPSGELRKVHIK

Fig. 19

HP10648	181'	LT	PRAPGSPRGQHEPSKPPPAGEVTVTGGFGAKRRKSSSQAPASKKLNKEELPVI	PKGP
CEY40B1B	1"			
		
				MSTGANLLVMNDTC
HP10648	241'	K	SGRVWKDRSKKRFSQLQDKPLRTSWQKMKERQERKLA	KDFARHLEEEKEERRRQEKKQ
CEY40B1B	15"	K	SNRWWKTKQEKKHSEIKKVKTLKSTWDKMKELKAKDMVKRVQDNIREKQVQ	ERQEKKE
HP10648	301'	R	RAENLKRRLENERKAEVVQVIRNPAKLKRAKKQLRSIEKRD	TLALLQKQPPQQA
CEY40B1B	75"	R	KVEQEKRRLENERKAEIVQKITKIHKLKKTKKRQ	LRSIQMRD

HP10162	1'	MEPQEERETQVAAWLKKIFGDHPIPQYEVNPRTEILHHLSERNVRDRDVLYVIEDLKQ *. . *. . *. . *. . *. . *. . *. . *. . *. . *. . *. . *. . *
RNUNK	1"	MAALEKASQVAEWLKKIFGDHPIPQYEMNARTTEILYHLSENRVRDRDVLNVIEDLRP
HP10162	61'	KASEYESEAKYLQDLLMESVNFSPANLSSGSRYLNALVDSAVALETKDTSLASFIPAVN ***** *.*.*****.***.*****.***.*****.***.*****.***.
RNUNK	61"	KASEYESEAKRLEDFLMESVNFSPANLNTGSRFLNALVDSALAEIKDTSLASFIPAVN
HP10162	121'	DLTSDLFRTKSKEEIKIELEKNLTATLVLEKCLQEDVKKAELHLSTERAKVDNRRQ *****.***.*****.*****.***.***.***.***.***.***.***.***.
RNUNK	121"	DLTSDLFRTKSKEEIKIELGLEKNLTATLVLEKCLREDLKKADVHLSEAERAKAEGRLQ
HP10162	181'	NMDFLKAKSEEFRFGIKAEEQLSARGMDASLSHQSLVALSEKLARLKQQTPLKKKKLES *****..*****.*****.*****.*****.***.*****.*****.
RNUNK	181"	NMDFLKAKAAEFRGIRAAEEQLSSRGMDASLSHRSLVALSDKLSELKQQTPLKKKKLES
HP10162	241'	YLDLMPNP SLAQVKIEAKRELD SIEAELTRRVDMME L *****.*****.*****.***.*****
RNUNK	241"	YLDLMPNP SLAQVKIEEAKRELD A IEAELTKKVDMME L

Fig. 21

F i g . 2 2

HP10532 1' MAGSEELGLREDTLRVLA AFLRRGEAAGSPVPTPPSPAQEPTDFLSRLRRCLPCSLGR

HSBBK 1" MAGSEELGLREDTLRVLA AFLRRGEAAGSPVPTPP -SPAQEPTDFLSRLRRCLPCSLGR

HP10532 61' GAAPSESPRRCSLPIRPCYGLEPGPATPDFYALVAQRLEQLVQEQLKSPSPPELQGGPPST

HSBBK 60" GAAPSESPRRCSLPIRPCYGLEPGPATPDFYALVAQRLEQLVQEQLKSPSPPELQGGPPST

HP10532 121' EKEAILRRLVALLLEEEAEVINQK-----

HSBBK 120" EKEAILRRLVALLLEEEAEVINQKLASDPALRSKLVRLSSDSFARLIVELFCSRDDSSRPSR

HP10532 181' -----EGILAV

HSBBK 180" ACPGPPPPSPEPLARLALAMELSRRVAGLGGTLAGLSVEHVHSFTPWIQAHGGWEGILAV

HP10532 241' SPVDLNLPLD

HSBBK 240" SPVDLNLPLD

Fig. 23

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HP10559 1'      MPVKKKRSPGVAAVAEDGGLKKCKISSYCRSQPPARLISGE
               ** .***. .*. * .*. * .*. * .*. * .*. * .*. *
KIAA 61" QGSLRSCSSSDCFNKVMPPRKKRR-----PASGDDLAKKSRHDSMYRKYDSTRIKTEE

HP10559 44' EHFSSKKCLAWFYEYAGPDEVVGPMEKFCEDIGVEPENIIMLVLAWKLEAESMGFFTK
               * .***. * .***. * .***. * .***. * .***. * .***. * .***. *
KIAA 116" EAFSSKRCLEWFYEYAGTDDVVGPMEKFCEDIGVEPENVVMLVLAWKLDQNMGYFTL

HP10559 104' EEWLKGMTSLQCDCTEKLQNKFDLRSQNLNDISSFKNIYRYAFDFARDKDQRSIDIDTAK
               .***.***.***.***.***.***.***.***.***.***.***.***.***.***.
KIAA 176" QEWLKGMTSLQCDTTEKLRNTLDYLRSLNDSTNFKLIYRYAFDFAREKDKQRSIDINTAK

HP10559 164' SMLALLLGRTWPLEFSVFYQYLEQSKYRVNMNKDQWYNVLEFSRTVHADLSNYDEDGAWPVL
               .***.***.***.***.***.***.***.***.***.***.***.***.***.***.
KIAA 236" CMLGLLLGKIWPPLFPVFHQFLEQSKYKVINCKDQWCNVLEFSRTINLDSLNYDEDGAWPVL

HP10559 224' LDEFVVEWQKVRQTS
               ***** * . *
KIAA 296" LDEFVVEWYKDKQMS

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Fig. 24

HP10562 61' QESEPEDFLKLFIDPNEVCSEASPGSDSGISEDPCHPDPPAPRATSSPMLYEVVYEAG
 LZIP 1" MEELDAGDQDLIAFLLEESGDLGTAPDEAVRAPLDWALPLSEVPSDWEVDDL
 HP10562 121' ALERMQGETGPNVGLISIQLDQWSPAFMVPDSCMVSELPFDAHAHILPRAGTVAPVPC^{TT}
 LZIP 54" LCSLLSPASLNILSSSNPCLVHHHTYSLPRETVSMDLESESCRKEGTQMT^{TP}QHMEE^{LA}
 HP10562 181' LLPCQTLFLTDEEKRLLGQGVSLPSHLPLTKAEERVLKKVRRKIRNKQSAQDSRRRKKE
 * * * * *
 LZIP 114" EQEIALRLVITDEEKSLEKEGLILPETLPLTKTEEQILKRVRRKIRNKRSQAQESRRKKKV
 HP10562 241' YIDGLES^{RV}AACSAQNQELQKKVQELERHNISLVAQLRQLQTLIAQTSNKAQTSTCVLI
 * * * * *
 LZIP 174" YVGGL^{ES}RV^{LK}YTAQN^{MEL}QNKVQLLEEQNLSLLDQLRKLQAMVIEISNKTSSSSTC^{ILV}
 HP10562 301' LLFSLALILPSFSPFQSR----PEAGSE^{DY}QPHGV^{TSRN}--ILTHKDV^{TEN}LETQV^{VES}
 * * * * *
 LZIP 234" L^{IVS}FCLLLVPAM^{YSSD}TRGSLPAEHGVL^{SRQ}LRA^{LP}SEDPYQLELPALQSEVPKDSTHQ
 HP10562 355' RIREPPGAKDANGSTR^{TLLE}KMGKPRPSGRIRSVLHADEM
 * * * * *
 LZIP 294" WLDGSDCVLQAPGNTSCLLHYMPQAPSAEP^{LEW}FPFDLFSEPLCRGPILPLQANL^{TRKG}

Fig. 25

HP10456 1' MSNMEKHLFNLKFAAKELSRSAKKCDKEEKA EKAKIKKAIQKGNMEVARIHAEN
CEBC-2 1" MGAGESSMALEKHLFDLIKFAAKQLEKNAQRCEKDEKVEKDKLTAAIKKGNKEVAQVHAEN
HP10456 55' AIRQKNQAVNFLRMSARVDAVAARVQTAVTMGKVTKSMAGVVKSMDATLKTNNLEKISAL
CEBC-2 61" AIRKKNEAVNYIKMAARIDAVAARVQTAATQKRVTASMSGVVKAMESAMKSMNLEKVQQL
HP10456 115' MDKFEHQFETLDVQTQQMEDTMSSTTTITTPQNQVDMILLQEMADEAGLDLNMELPQGQTG
CEBC-2 121" MDRFERDFEDLDVTTKTMEKTMDDGTTVLNAPKQVDALIAEAAADKAGIELNQELPSNVPT
HP10456 175' SVGTSV-ASAEQDELSQRLARLRDQV
CEBC-2 181" ALPTGTQAVSEDKDLTERLAALRNM

Fig. 26

HP10498	1'	MATPSLRGLARFGNPRKPVLPKPKPLILANRV-GERRREKGEATCITEMSVVMA
CEC24	1"	MMFSSPLIKEKALARGKSIYPKVAVFSEILPLASKNRVQAGQKPRAASSSCTQELQALFG
HP10498	55'	CWKQNEFRDDACRKEIQGFIDCAAR-AQEARKMR--SIQETLGE SGLLPNKNLKLQRF
CEC24	61"	CLKKWEFDDVPCSKQHTLYMDCVHKGAEEAAAYRDATA TRKGTLGESGAGGKQSM TSAQFNK
HP10498	112'	PNKP YLS
CEC24	121"	IQKLFPQPD LGKQPYRQMKRLPTQDYADDTFHRKHWSGKRS

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HP10505 1' MAKHLKFIARTVMVQEGNVE SAYRFTLNRI LITMDGLTIEDIKHRRYYEKP CRRRQRESYERC
      ***...*. * * * * * * * * * * * * * * * *
CEFF29 1" MVQNNDVDGAFGLLNRLMDSEGMLKIIRRTQFYQKPYMQKRTLSMEAS
      * * . * * . * * . * * . * * . * * . * *
HP10505 61' RRIYNMEMARKINFLMRKNRADPWQGC
      * * . * * . * * . * * . * * . * *
CEFF29 49" TAIFNEDMNRKMKFLVRKNRPDKHPGQVTS

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Fig. 27

Fi 28

Fig. 29

HP01124	1'	MGTEKESPEPDCQKQFQAAVSVIQNLPKNGSYRPSYEEMLRFYSYKQATMGPCLVPRPG
HSACBP	1'	MSQAEEFEKAAEEVRHL-----KTKPSDEEMLFYGHYKQATVGDINTERPG
HP01124	60'	FWDPIGRYKWDWNLSLGKMSREEMSAITTEMKLVAKVIDTVPLGEVAEDMFGYFEPLY
HSACBP	47"	MLDFTGKAKWDWNELKGTSKEDAMKAYINKVEELKKKYGI

Fi 30

[illegible]

Fi 31

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HP10101 1' MKAVKSERERGSRRRRHRDGDVVLPAQVVVKQERLSPQVAPPAHRRPDHSGGSPPTSEF
HP10101 60' ARSGHRGNRARGVSRPPKKKNKASGRRSKSPRSKRNRSPHHSTVKVKQEREDHPRRGRE
CEC32E8 1' MGRDSPRDRRRHRDRSPERRRRSRSDRQTRRD-T
HP10101 121' DRQHREPSEQEHRARNRSDRHRGHSHQRRTSNRPGSGQGQGRDRDTQNLQAQEEERE
CEC32E8 36" RRDDSPKIKREVKEEQFSDNDSPRRRDRGGRDRDRDRNRDDR-RDHRDDRGRDRDRR
HP10101 181' FYNARRREHRQNDVGGGSESQELVPRPGNNKEKEVPAKEKPSFELSGALLIEDTNTFR
CEC32E8 95" NF--RRDPVREDGKQYGLEKKEENWGKPEEPAKEK-----EKVNLGTSGALLIEDTNTFR
HP10101 241' GVVIKYSEPEARIPKKRWRLYPFKNDEVLPVMIYIHRQSAYLLGRHRRRIADIPIDHPSCS
CEC32E8 148" GVVIKYNPEPEAKKPNARWRLYPFKGEESLQVLYIHRQSAYLIGRDHKIADIPVDHPSCS
HP10101 301' KQHAVFYQRLVVEYTRADGTVGRRRVKPYIIDLGSGNGTFLNNKRIEPQRYRYELKEKDVLKF
CEC32E8 208" KQHAVLQFRSMFFTRDDGTKARRIMPYIIDLGSGNGTFLNEKKIEPQRYRYELQEKDMLKF
HP10101 361' GFSSREYVLLHESDTSIEDRKDDDEDEEEEEVSDS
CEC32E8 268" GFSTREYVVMKEREITEEELAEGEDVVKKEESD

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Fig. 32

HP10370 1' MEYDEKLARFRQAHLNPNFKQSGPRQHEQGPGEEVDPVTPEKALPELPPOEPEF
DMCG115 1" MBSWKDSLTSPGTVAQLINESASNLHASSTLG8TVLGG8GSTG9GSEAGGSEESGPQ
HP10370 55' RCPERVMDLGLSEDFHSRPVGLFSLASDVQQLRQAIIECKQVILELPEQSEKQKDAVVRLL
DMCG115 61" QAEYRALPIPASIVREQWRIITFTSDANIQDLQAAIAHCRDLVLLSEELSEERRWLVRHLV
HP10370 115' HLRKLQELKDPNE-----DEPNIRVLLEHRE-----YKEKSKSVKQTCDDK
DMCG115 121" DLRYSLQELEEAQEQHSLS8DMVMNATRAVVGHIFVPIHPHIGKRNRLLQAAAKRNYCDH
HP10370 156' CNFTIHWGLIQTWYTCGCVYRCHSKCINLISKPCVSSKSHQAEYELNICPEFTGLDSQDY
DMCG115 181" CFTIWSVVQNSYVCSDCGFLVHQKCIDGVKRVCAHVLVSEHQHPIS8EICPEIGLASQGY
HP10370 216' RCAECRAPISLRGVPS8ARQCDYTGQYVCSHCHWNDLAVIPARVVHNWDFEPRKVSRC8M
DMCG115 241" KCAECOTMLNITKNFTWIEPRICDY8GLVYCPRCNWNDSNFIPIRIHNWDFEPRRV8RTAL
HP10370 276' RYLALMV8RPVLRRLREINPLILF8YVVEELVEIRKLQRQDILLMKPYFITCREAMEARLL-LQ
DMCG115 301" QETRLFLNKPILIRLEEDNP8KLFV8VEKLC8VKKLRQNLVHMRHYLAACKIAS8ELKLV8DQQ
HP10370 335' LQDRQH8VENDEMY8VQDILLDVH8GRIGCSLTETHTFLFAKHIKLDCERCQAK8FV8CEL8R
DMCG115 361" LGVRRH8LAQ8NEFY8LS8DLSQV88GAL88EFLQGV8KAFNDHIR-8CPMCLAQAYICEIC8
HP10370 395' EGDVLEFP8D8HT8V8CADCS8AV8HRDCY8DN8T8CPKCARLSLRKQ8SLFQ8EP8GPDVEA
DMCG115 420" NNEVTI8P8FD8GCI8KQ8D8C8NI8F8HRV8CLTRKNMTC8PK8TRI8QERRLQ8LDRMK8ST8ED8DD8DD

F i g. 3 3

HP10427 1' MAGPAAAFRRLGALSGAAALGFASYGAH--GAQFPDAYGKELEFDKANKHHFHLHSLALLG
 CEY106G 1" MSPIIRLAGLSGAVAIISLGAYGSHVLRDNPSIDERRRTAFDTASRYHHLIHSALLA
 HP10427 58' VPHCRKPLWAGLLIASGTTLECTSFYYQALSGDPSTQTLAPAGGTTLLLLGWLALAL
 CEY106G 57" SPAARFPILVTAGLFTAGITLFCGPCYHYSISGVETTRKYPPIGGVTLLIAWLSFIL

F i g. 3 4

HP10516	1'	MAGTGLIALRTLPGPSWVRGSPVLSRLQDAAVVRPGFLSTAEEETLSRELEPELRRRR * * * * *	* * * * *
DMCG141	1"	MRIITDFISEPEEQQLHEEIEPPYMSRLR		
HP10516	61'	YEYDHWDAAIHGFRETEKSRWSEASRAILQRVQAAAFGPGQTLSSVHVLDLEARGYIKP	* * * * *	* * * * *
DMCG141	29"	YEFDHWDDAIHGFRETERKKWFPKNREILERVQVAF--DGAVMPYVHILD LAPDGVIKP		
HP10516	121'	HVDSIKFCGATIAGLSLLSPSVMRLVHT--	-----	QEPG
DMCG141	87"	HVDSTRYCGNTISGISLSDSVMRLVRTDEQRYQQSSGTATDPNSQGSEPDAAVYRHQPE		
HP10516	153'	EWL-----ELLLEPGSIIYILRGSAARYDFSHEILRDEESFFGERRIPRGRRIISVICRSLP		
DMCG141	147"	ASLKNFYADILLPRRSIYIMSHYARYKFTHEILAKEHSQFQGAIVPTRRRIISICRNEP		

File 35-1

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HP10580 251' QSLERHKEQLLAAEPVRAKLDQRORRVFQSPPLASQFELPGDFFNLTAEEIKREQLRSEA
.* **..*...***..**.*...***.***.*****
DMCG546 353" LDLPTLVEALKSSEIIPLEIDRNLIKVLPSQ-ACRVALPDEFYRLSPEEIKKEQQQLRSEA

HP10580 311' VERLSVLRITKAMREKEEQGLRKYNITYTLRVRLLPDGCLLQGTFYARERLGA VYG FVREAL
... .*****.*****.*****.*****.*****.*****.*** *
DMCG546 412" IAQSQMLRTKAMREREEO RNLRMYRYALVRVKFPNGLF IQGT FN VYEKISDVFFE FVQSCL

HP10580 371' QSDWLPFELLASGGQKLSEDE-NLA LNECGLVP SALLTFSWDMAVLEDIKAAGAE PDSIL
... * ..*.*****. ....* ..* .....** **

DMCG546 472" ADES LDFSLVSNSDGKLGDEDLEKTLYDC KLI PN TLLLFSANDTPAPLQT D INYLKEDLL

HP10580 430' KP ELLSAIEKLL

DMCG546 532" MLVQAM

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